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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/595,003	06/13/2000	Nicolas Vazquez	5150-44300	7955

7590

08/26/2004

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EXAMINER
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PILLAI, NAMITHA

ART UNIT	PAPER NUMBER
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2173

DATE MAILED: 08/26/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	Application No.	Applicant(s)	
	09/595,003	VAZQUEZ ET AL.	
	Examiner	Art Unit	
	Namitha Pillai	2173	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
  - If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
  - If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
  - Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☒ Responsive to communication(s) filed on 10 May 2004.
- 2a) ☒ This action is **FINAL**.      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 1-7,9-37,39-59,61-74 and 76-90 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-7,9-37,39-59,61-74 and 76-90 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 13 June 2000 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

## DETAILED ACTION

### *Claim Rejections - 35 USC § 103*

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

1. Claims 1-7, 8-16, 21-37, 39-43, 45-59, 61-65, 67-74 and 76-90 are rejected under 35 U.S.C. 103(a) as being unpatentable over U. S. Patent No. 5,862,372 (Morris et al.) and U. S. Patent No. 5,631,974 (Lau-Kee et al.).

Referring to claims 1, 53, 71, 81 and 90, Morris discloses a method for creating a graphical program to perform an algorithm, with the recording of functions in response to user input, with the functions specifying the algorithm (column 2, lines 20-27). Morris discloses automatically generating the graphical program in response to the recorded functions, with the display of a plurality of interconnected nodes, which visually indicate functionality of the graphical program, with the graphical program implementing the algorithm. See column 3, lines 29-35. Morris does not disclose that user input does not use the selection of the nodes. Lau-Kee discloses that the user may choose options from a menu wherein this menu allows for the user to choose a function, wherein upon this choice, the computer system would be responsible for finding the image icon represented by this function and placing this in the appropriate location, thereby not relying on user input to select the nodes (column 10, lines 32-43). It would have been obvious for one skilled in the art, at the time of the invention to learn from Lau-Kee to implement a detail disclosure of the use of computer systems in making the automated process carry out the

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step of graphical program creation of placing nodes in an automated step. The systems and objectives of creating a graphical program are quiet similar in both Morris and Lau-Kee. Both inventions use basic instructions from user to create a graphical program to carry out image processing, wherein Lau-Kee further discloses a means for automating the process even further by alleviating the user from creating the node sequence in the graphical programming. Hence, one skilled in the art would have been motivated to learn from Lau-Kee to automatically generate the graphical program, through including of the nodes without direct user input selecting the nodes.

Referring to claims 2, 54, 79 and 88, Morris discloses performing the function in response to user input, wherein the user dragging the objects is the function which is then recorded in response to the user's action for specifying the algorithm (column 3, lines 32-34).

Referring to claims 3, 32 and 55, Morris discloses creating a prototype or a set of instructions by recording the functions carried out by the user (column 3, lines 29-30).

Referring to claims 4, 33, 56, 72 and 82, Morris discloses that the prototype is in the discipline of image processing as seen by the results of the prototyping program shown in Figure 5 (column 6, lines 37-42).

Referring to claims 5, 34 and 57, Morris discloses recording the functions in response to input received via a graphical user interface (column 2, lines 20-24 and Figure 5).

Referring to claims 6, 58, 73 and 83, Morris discloses that the graphical user interface wherein the user would work with is based on the prototyping environment application (column 2, lines 57-52).

Referring to claims 7, 35, 59, 74 and 84, Morris discloses that the user input consists of selecting the functions from a menu and palette (column 2, lines 20-24).

Referring to claims 9, 39, 61, 76 and 85, Lau-Kee discloses automatically generating the graphical program comprises automatically including and connecting the nodes generating graphical code in the graphical program without direct user input (column 10, lines 32-43 and lines 62-67).

Referring to claims 10 and 62, Morris discloses the graphical program running or executing, wherein the algorithm represented by the functions are performed (column 3, lines 34-35).

Referring to claims 11, 40, 63 and 87, Morris discloses that the graphical program includes a block diagram portion (column 5, line 43) and a user interface panel portion, represented as the palette in Figure 5.

Referring to claims 12, 41 and 78, Morris discloses that the graphical program is a graphical data flow program as seen in Figure 2 (column 5, lines 43-46).

Referring to claims 13, 42, 64, 77 and 86, Lau-Kee discloses that the automatic generation of the graphical program is done through the automatic inclusion of nodes or "objects" corresponding to respective one of the one or more functions in the graphical program (column 10, lines 32-43).

Referring to claims 14, 43 and 65, Morris discloses the functions comprising a script, with the script having an association with the graphical program (column 6, lines 24-26). Morris discloses modifying the script to create a new script in response to user input once an association has been made (column 6, lines 26-33). Morris also discloses modifying the graphical program, shown as the map view of objects for the graphical

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program, and this map representation being modified based on the changes to the script, with the production of the new script (column 6, lines 32-43).

Referring to claim 15, Morris discloses there being a clear association between the script and the graphical program, this association being used during modification of the graphical program and this association remaining between the new script and the new graphical program (column 5, lines 54-55 and column 6, lines 24-36).

Referring to claim 16, Morris discloses receiving user input indicating a desire to change the graphical program, displaying the script information of the script, modifying the script information in response to user input and modifying the graphical program after modifying the script information. See column 6, lines 9-14).

Referring to claims 21, 45 and 67, Morris discloses receiving user input specifying code generation information and using this information to automatically generate the graphical program (column 2, lines 20-27).

Referring to claims 22, 46 and 68, Morris discloses that the code generation information represented as objects, specify or represent the type of program to create in response to the recorded function, wherein the program is created in accordance with the specified graphical program type (column 3, lines 5-15).

Referring to claims 23 and 47, Morris does disclose that the graphical program type, in this case being "WINDOWS" applications, specifies a particular programming environment, wherein the program, represented as "APPLICATIONS" are created in a file format that is usable by the particular programming environment. Morris clearly discloses using standard programming languages, representing the file format, which

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would enable the users to create the applications particular to the programming environment being used. See column 4, lines 45-55.

Referring to claims 24, 48 and 69, Morris discloses a plurality of parameters associated with the functions wherein each parameter is an input parameter, which provides input to a function (column 6, lines 26-29). Morris also discloses that the code generation information specifies input parameters, which are desired to be interactively changeable. Morris also discloses automatically generating the graphical program represented by objects, wherein the program receives user input during the program operation, with the user specifying values for the specified input parameters. See column 6, lines 24-32. Morris also discloses automatically generating the graphical program comprises enabling the graphical program to display output during program operation, wherein the output indicates values for the specified parameters (column 6, lines 37-41).

Referring to claims 25, 49, 70, 80 and 89, Morris discloses automatically generating a graphical program includes generating portions of graphical code, with each portion implementing one of the functions and linking the portions of graphical code together (column 1, lines 61-66 and column 2, lines 1-4).

Referring to claims 26 and 50, as seen in Figure 2 of Morris, the graphical programming nodes each have inputs and outputs, and wherein generating the portions of the graphical code comprises connecting the node inputs and outputs together in order to implement the function with which the portion of graphical code is associated (column 5, lines 40-50).



Referring to claims 27 and 51, as seen in Figure 2 of Morris, a first portion of graphical code is linked to a second portion of graphical by connecting an output of a node in the first portion to an input of a node in the second portion of the graphical code.

Referring to claim 28, Morris discloses data being passed between the objects, wherein the data affecting the outcome of these objects (column 5, lines 46-48). As seen in Figure 2 also, the functions represented as the objects have input parameters, wherein the portion of code with the node has an input for receiving a value for the input parameter. Each of the nodes having an input parameter also has a leaf node that has an output for providing a value for the input parameter, with the leaf node for providing the parameter value is connected to the node input for receiving the parameter value as seen by the node relationships shown in Figure 2.

Referring to claim 29, Morris discloses that the functions have output parameters, with as seen in Figure 2, certain nodes providing output parameters to other node, to implement functions, wherein there is a leaf node that is associated with the node with the output parameter, with the leaf node receiving the output parameter as input for the node, with the two nodes being connected to each other. See Figure 2.

Referring to claims 30 and 52, Morris discloses that all information used for this invention, which would include the information needed to generate the graphical program and the functionalities of the nodes are all stored remote information source or storage means, thereby suggesting a database, as shown in Figure 1 (column 5, lines 10-16).

Referring to claim 31, Morris discloses a computer system, which would include a processor with a memory, coupled to the processor, which would store certain applications, one of them being a prototyping environment application (column 5, lines 8-

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11). Morris also discloses a user input device which receives user input, the presence of a user input obviously being inherently disclosed through the discussion of the user manipulating the icons from the palette (column 2, line 24). Morris discloses that this prototyping environment application carries out the generation of the graphical program (column 1, lines 10-15). Morris discloses a method for creating a graphical program to perform an algorithm, with the recording of functions in response to user input, with the functions specifying the algorithm (column 2, lines 20-27). Morris discloses automatically generating the graphical program in response to the recorded functions, with the display of a plurality of interconnected nodes, which visually indicate functionality of the graphical program, with the graphical program implementing the algorithm. See column 3, lines 29-35. Morris does not disclose that user input does not use the selection of the nodes. Lau-Kee discloses that the user may choose options from a menu wherein this menu allows for the user to choose a function, wherein upon this choice, the computer system would be responsible for finding the image icon represented by this function and placing this in the appropriate location, thereby not relying on user input to select the nodes (column 10, lines 32-43). It would have been obvious for one skilled in the art, at the time of the invention to learn from Lau-Kee to implement a detail disclosure of the use of computer systems in making the automated process carry out the step of graphical program creation of placing nodes in an automated step. The systems and objectives of creating a graphical program are quiet similar in both Morris and Lau-Kee. Both inventions use basic instructions from user to create a graphical program to carry out image processing, wherein Lau-Kee further discloses a means for automating the process even further by alleviating the user from creating the node sequence in the

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graphical programming. Hence, one skilled in the art would have been motivated to learn from Lau-Kee to automatically generate the graphical program, through including of the nodes without direct user input selecting the nodes.

Referring to claim 36, Morris discloses a computer system implementing this graphical program creation program, wherein the information would be stored in memory and there would be means for calling the graphical program creation program, within the computer system, as would be the case for calling any application in a computer system (column 5, lines 8-13). Morris also discloses that the prototyping environment application through calling the run time program, whereby calling the graphical program creation program, executes to automatically generate the graphical program (column 7, lines 4-7).

Referring to claim 37, Morris discloses that the graphical creation program is a graphical programming development environment application (column 4, lines 46-50).

2. Claims 17-20, 44 and 66 are rejected under 35 U.S.C. 103(a) as being unpatentable over Morris and Lee-Kau, and further in view of U. S. Patent No. 5,623,659 (Shi et al.).

Referring to claims 17, 44 and 66, Morris and Lee-Kau discloses creating an association between the script and the graphical program (Morris, column 6, lines 30-32). Morris and Lee-Kau do not disclose locking the association between the script and the general program. Shi discloses locking the association between a program and a user, wherein the locking prevents other users from editing the portion associated to the initial user (column 2, lines 5-11). It would have been obvious to modify Morris and Lee-Kau's invention such that locking the association between the script and the graphical program

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wherein the locking prevents the user from editing the program. Morris discloses allowing the user's to manipulate the scripts and the graphical program, but does not disclose any means for controlling this manipulation, thereby possibly leading to mistakes. Thus measures must be taken to ensure that unnecessary mistakes do not occur. The locking mechanism disclosed by Shi could prevent such mistakes from occurring in Morris and Lee-Kau's graphical program, and laying out some control mechanisms for user manipulation. One skilled in the art would be motivated to learn from Shi's teachings by locking the association between the script and the graphical program to have more control over the user's manipulations of the graphical program.

Referring to claim 18, Shi discloses unlocking the association between the script and the graphical program in response to user input after locking. Shi also discloses directly changing the portion in response to the changes made by the user. See column 2, lines 19-23.

Referring to claim 19, Shi discloses unlocking such that it removes the association between the script and the program (column 2, lines 19-20).

Referring to claim 20, Morris discloses modifying the graphical program in response to user input after generating the graphical program and after creating the association between the script and the graphical program (column 6, lines 20-36). Morris also discloses determining if an association exists between the script and the graphical program in response to the modifications made by the user concerning components of the graphical program (column 6, lines 30-32). Morris and Lee-Kau do not disclose removing the association between the script and the graphical program. Shi discloses removing the association between the script and the graphical program in response to

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modifying (column 2, lines 19-20). It would have been obvious for one skilled in the art, at the time of the invention to remove the association between the script and the graphical program in response to modifying. Morris and Lee-Kau's invention denotes an association between the script and the graphical program at all times, which could prove inconvenient, especially when the user may make mistakes by changing the script and the association causing the same changes to the graphical program which may be undesirable. To prevent such unnecessary mistakes, Morris and Lee-Kau could use a mechanism for removing the association between the script and the graphical program in response to modifying. One skilled in the art, at the time of the invention, would have been motivated to learn from Shi to implement a means for removing the association between the script and the graphical program in response to modifying.

#### ***Response to Claim Changes***

3. The Examiner acknowledges Applicant's amendments to claims 1, 19, 13, 31, 39, 42, 53, 61, 64, 71, 76, 77, 81, 86 and the addition of new claim 90. All claims are rejected under 35 U. S. C. 103 as being obvious over prior art.

#### ***Response to Arguments***

4. Applicant's arguments filed 5/3/04 have been fully considered but are moot in view of the new ground(s) of rejection.

#### ***Conclusion***

5. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within

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TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Responses to this action should be mailed to: Commissioner of Patents and Trademarks, Washington D.C. 20231. If applicant desires to fax a response, central FAX number (703) 872-9306 may be used. NOTE: A Request for Continuation (Rule 60 or 62) cannot be faxed. Please label "PROPOSED" or "DRAFT" for informal facsimile communications. For after final responses, please label "AFTER FINAL" or "EXPEDITED PROCEDURE" on the document. Hand-delivered responses should be brought to Crystal Park II, 2121 Crystal Drive, Arlington. VA., Sixth Floor (Receptionist).

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Namitha Pillai whose telephone number is (703) 305-7691. The examiner can normally be reached on 8:30 AM - 5:30 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, John Cabeca can be reached on (703) 308-3116.


All Internet e-mail communications will be made of record in the application file. PTO employees do not engage in Internet communications where there exists a possibility that sensitive information could be identified or exchanged unless the record includes a properly signed express waiver of the confidentiality requirements of 35

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U.S.C. 122. This is more clearly set forth in the Interim Internet Usage Policy published in the Official Gazette of the Patent and Trademark on February 25, 1997 at 1195 OG 89.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Group receptionist whose telephone number is (703) 305-3800.

Namitha Pillai  
Assistant Examiner  
Art Unit 2173  
August 19, 2004



RAYMOND J. BAYERL  
PRIMARY EXAMINER  
ART UNIT 2173